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ecology and environment, inc.

160 SPEAR STREET, SAN FRANCISCO, CALIFORNIA 94105, TEL. 415/777-2811

International Specialists in the Environment

MEMORANDUM

TO: Paul La Courreye, EPA Region IX

FROM: Karen Ladd, Ecology and Environment, Inc. jmj for K.L.

DATE: September 7, 1990

SUBJECT: Completed Work

cc: Marcia Brooks, E & E FIT

Attached is the following completed:

PA X PA Review___ SSI___ LSI___ SIRe___

Other_____

Site Name: Astroplate Inc.

EPA ID #: AZD981424468

City, County: Phoenix, Maricopa County

State Recommendation:
(for Reviews only)

FOR EPA USE ONLY

CERCLIS Lead: F

PA-1 Complete pul
10.1.90 =LSSI=

10/12/90

jtb/astro/cwm

Color
signed

Purpose: CERCLA Preliminary Assessment

Site: Astroplate Inc.
2724 W. Palm Lane
Phoenix, Arizona 85009
Maricopa County

FINAL EPA File Copy

Site EPA ID Number:	AZD981424468
TDD Number:	F9-9003-011
Program Account Number:	FAZ0337PAA
FIT Investigators:	Janice T. Brickell Kathy Zavitz
Date of Inspection:	May 7, 1990
Report Prepared By:	Janice T. Brickell JB
Through:	Su-san Wen SW
Report Date:	September 7, 1990
FIT Review/Concurrence:	James M. James 9/14/90
Submitted To:	Paul La Courreye Site Assessment Manager EPA, Region IX

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International Specialists in the Environment

1. INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) the U.S. Environmental Protection Agency has tasked Ecology and Environment Inc.'s Field Investigation Team (FIT) to conduct a Preliminary Assessment of Astroplate Inc. in Phoenix, Arizona. This report summarizes FIT's investigative efforts.

2. SITE DESCRIPTION

2.1 SITE LOCATION AND OWNER/OPERATOR HISTORY

The Astroplate Inc. (Astroplate) site is located at 2724 W. Palm Lane in Phoenix, Arizona (Township 2 North, Range 2 East, Section 35, Gila and Salt River Base Line and Meridian; Latitude: 33° 27′ 30", Longitude: 112° 07′ 36") (see Figure 1) (1). The site covers less than 1 acre in a primarily commercial and industrial area (1). The Salt River is located 4 miles south of the site (1).

The site was first developed in 1978 as a plating company called Techno Finish which encompassed the facility now owned by Astroplate and an adjacent building. Techno Finish went out of business before Astroplate took over in 1981 (3). FIT was unable to identify past facility processes and waste management practices of Techno Finish. Astroplate currently employs 25 people (2).

2.2 FACILITY PROCESSES/WASTE MANAGEMENT

2.2.1 HISTORICAL

Astroplate has operated the facility since 1981 as an electroplating company which receives aluminum and stainless steel products and treats these products in order to prevent oxidation.

Between 1984 and 1985 the facility used 1,1,1-trichloroethane (TCA) in a vapor degreaser (9). However, it appears that TCA was used during the first four years the facility was in operation. The degreaser generated enough spent solvent per month to fill half of a 55-gallon drum. The spent solvent was left to evaporate from an open drum (5). When the facility stopped using TCA, two drums were picked up by a reclaimer known as Rinchem (9). In 1985 the facility converted to using organic soaps and, since then, no longer uses TCA (2).

Facility processes and waste management practices while the facility operated as Techno Finish were unknown to FIT at the time of this report. It is possible that the facility generated larger quantities of waste than the current facility.

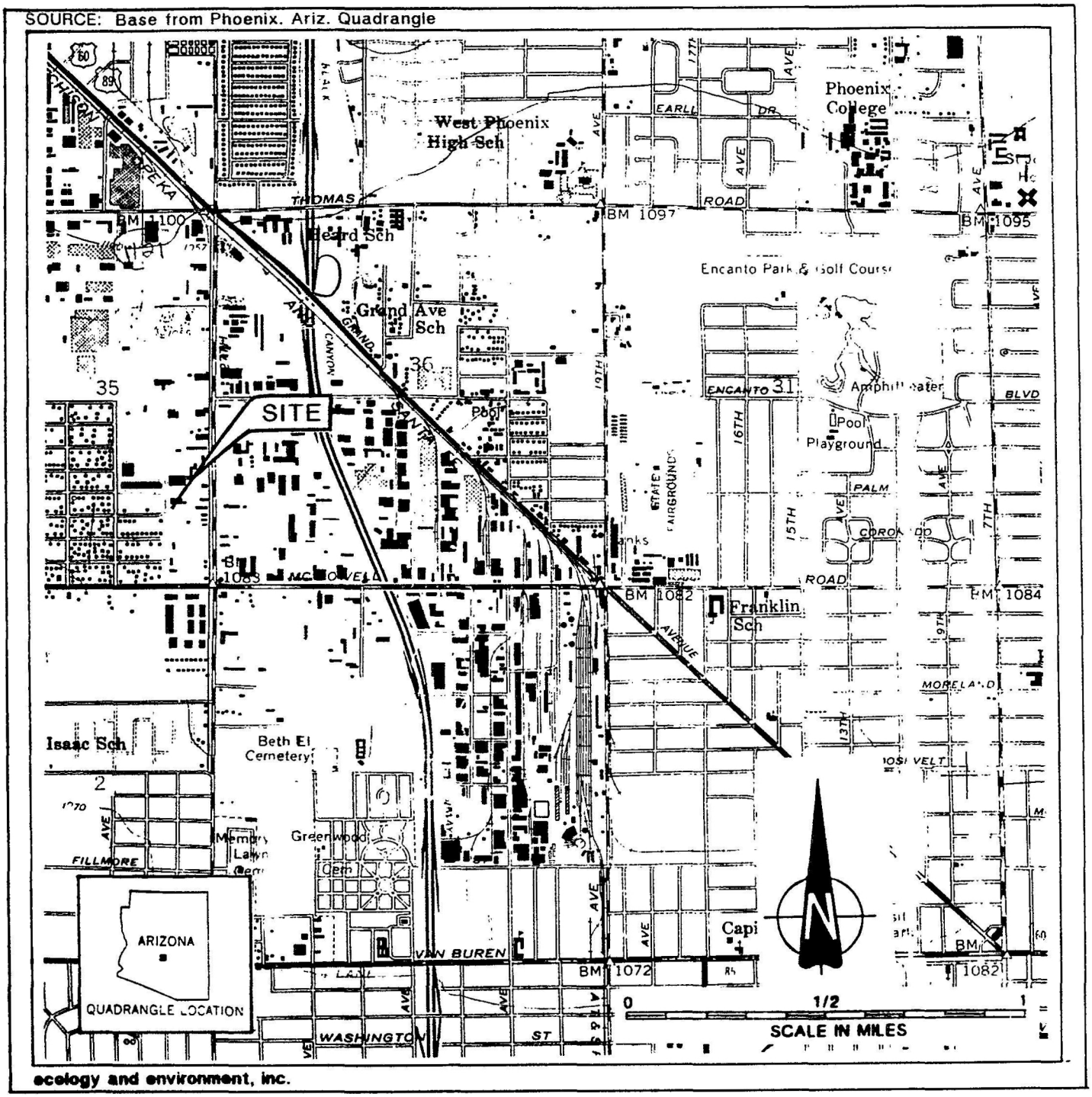

Figure 1 SITE LOCATION MAP

ASTROPLATE INC.

2724 W. PALM LANE

PHOENIX, AZ 85009

2.2.2 CURRENT

Astroplate has maintained the same processes as those used in the past with the exception of using a vapor degreaser and TCA, which were discontinued in 1985. Astroplate's processes are anodizing, black oxide treatment, chem film treatment, and zinc phosphate treatment (4).

Aluminum products are usually anodized. This process prevents oxidation, creates a surface that absorbs dye, and seals in color. Substances used in this process include nitric acid solution, sulfuric acid solution, rinse water, organic dye, nickel acetate seal, and hot deionized water (4).

The black oxide treatment is a process which penetrates steel to make it black. Substances used in this process are organic soaps, hydrochloric acid, and water soluble oil. The chem film treatment process uses a chromic acid solution. It cleans the metal surface and undercoats it in order to allow paint to adhere to the metal. The zinc phosphate treatment process uses organic soaps, hydrochloric acid, a zinc cyanide solution, a heated zinc phosphate solution, and a water soluble oil (4).

The only waste produced at the facility is wastewater. Each process produces wastewater because the acid solution tanks and rinse tanks need to be changed and replaced with fresh solutions and water. Wastewater is neutralized in a below-ground sump before it is released to the sewer system (4).

The facility does not store raw materials on site because these materials are almost immediately mixed into a solution. When tank solutions are being changed the maximum quantity of raw material that could be found on site is one to two 13-gallon containers of each acid. All liquid material is kept and used within the facility building which has a concrete floor and slopes to a center drain which leads to the sump (4).

2.3 REGULATORY INVOLVEMENT

Astroplate is located within the West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) study area, as designated by the Arizona Department of Environmental Quality (ADEQ). A Phase I report was written to identify the extent of groundwater contamination. Consequently, the Phase I report identified a large contaminant plume and three smaller plumes. A Phase II report will examine the facilities which contributed to the contamination plume and may address the smaller contamination plumes in the West Central Phoenix study area (6). Although Astroplate most likely did not contribute to the main contaminant plume, it is considered to be a potentially responsible party to the Shamrock Dairy plume. Thus, the site was entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) as requested by ADEQ (27).

The ADEQ Waste Compliance Unit has cited Astroplate for the following waste management violations: failure to obtain a Resource Conservation and Recovery Act (RCRA) permit, failure to keep hazardous waste containers closed, failure to clearly mark hazardous waste containers, failure to label each container with the words "Hazardous Waste", failure to ship wastes off site within the 90-day accumulation period, failure to develop a hazardous waste management training program for facility personnel, failure to develop a contingency plan and emergency procedures, failure to obtain an EPA identification number, failure to submit an annual generator's report and retain a copy of this report (28). Astroplate has adequately addressed the violations and has made the necessary changes as required by ADEQ (5).

On several occasions Astroplate exceeded its discharge limits for chromium or pH level. The City of Phoenix, Water and Wastewater Department inspects the facility on a regular basis to determine whether or not the facility is complying with its wastewater discharge limits (4). Wastewater discharge permits are renewed on an annual basis.

The facility is regulated as a large quantity generator of hazardous waste according to the May 8, 1990 RCRA data base.

3. APPARENT PROBLEM

A Phase I report on the West Central Phoenix WQARF study area has been written by a private consultant for ADEQ. Based on groundwater sampling results, it appears that the major impact on the groundwater quality has occurred in the eastern to central portions of the study area. The contaminant plume identified in this area contains concentrations of trichloroethylene (TCE), perchloroethylene (PCE), and 1,1-dichloroethylene (1,1-DCE) above applicable EPA Maximum Concentration Levels (MCL). Additionally, three localized areas of 1,1-DCE, TCE, and PCE have been identified north, southeast, and southwest, respectively, of the main contaminant plume (6).

As part of the Phase I research, approximately 300 facilities whose business activities possibly involved the use of chlorinated solvents were sent questionnaires (6). Although Astroplate is located within the boundaries of the study area, it was not sent a questionnaire. Astroplate is in the vicinity of contamination referred to as the Shamrock Dairy plume which is southeast of the main contaminant plume. ADEQ has indicated that it still needs to address the smaller plumes by conducting a Phase I research plan to identify point sources of these plumes (7).

Apparently Astroplate never used the constituents found in the contaminant plumes, however, the facility did use TCA in its vapor degreaser. TCA is used as an industrial cleaner and degreaser and has been shown to degrade to 1,1-DCE under laboratory conditions (8). A site reconnaissance performed by FIT determined that all liquid materials are stored inside the facility building where potential leaks or spills could flow to the containment area. However, this containment area does not have the capacity to hold the entire volume of tanks used at the facility (9).

jb/ai/pa

The previous facility, Techno Finish, was a larger facility than Astroplate. Thus, there is a potential that large waste quantities could have been generated by this facility. At the time of this report the waste disposal practices and types of containment at this facility were unknown to FIT. The facility may have used a vapor degreaser during its entire time of operation from 1979 to 1981. The use of vapor degreasers is commonly found in plating processes.

4. HRS FACTORS

The Hazard Ranking System (HRS) is a scoring system used to assess the relative threat associated with actual or potential releases of hazardous substances from sites. It is the principal mechanism EPA uses to place sites on the National Priorities List (NPL). EPA has proposed revisions to the HRS, pursuant to the Superfund Amendments and Reauthorization Act of 1986 (SARA). FIT has evaluated the following proposed revised HRS factors relative to this site.

4.1 WASTE TYPE AND QUANTITY

Aboveground tanks are used for all processes at the Astroplate site. Each tank is a double walled tank with a polypropylene liner. These tanks contain a total of 2,300 gallons (gal.) of sulfuric acid solution, 750 gal. of nitric acid solution, 20 gal. of hydrochloric acid solution, 600 gal. of chem film (chromium solution), 120 gal. of zinc phosphate, and 7,500 gal. of rinse water (9). The tanks are contained within the facility building on a concrete floor which slopes to a center drain (4). The drain carries any spilled solution or rinse water to a sump. Although the tanks are within the facility building, constituents which are mobile to air are not completely contained because the building is ventilated with large fans and by large doors at each end of the building.

The sump consists of six below-ground, concrete tanks which have a capacity of approximately 2,000 gallons each. The sump also has a concrete berm approximately 4 to 5 feet high (9). The facility produces approximately 15,000 gallons of wastewater per day (4). This wastewater is likely to contain those constituents found in the tanks. All wastewater enters the sump where it is neutralized before being released into the sewer system (4).

From 1984 to 1985 the facility used TCA in its vapor degreaser. The degreaser generated enough spent solvent per month to fill half of a 55-gallon drum. The spent solvent was left in an open drum to evaporate (5).

During an ADEQ site inspection unknown quantities of plating sludge were found in the bottoms of tanks which were acquired from another plating facility (5).

There is a potential that the previous plating shop, Techno Finish, generated large quantities of waste. The wastes are likely to contain heavy metals and solvents since these are common constituents found in wastes generated through plating processes.

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4.2 GROUNDWATER

The Astroplate site is located in the West Central Phoenix study area, as defined by the ADEQ. The West Central Phoenix area lies within the West Salt River Valley. The valley is surrounded by generally northwest-southeast-trending mountain ranges and is infilled with alluvial and lacustrine playa-type deposits. The unconsolidated sand and gravel-rich deposits that fill the basin comprise the Central Arizona groundwater reservoir (10). The major water-bearing formations within the West Salt River Valley are the Tertiary and Quaternary valley fill deposits. The valley fill deposits are heterogeneous; therefore, groundwater occurs under varying hydrologic conditions ranging from semiperched and perched to unconfined and confined (11). The aquifers in the first few hundred feet are unconfined in the Phoenix area, thus they appear to be interconnected (12).

The Late Tertiary and Quaternary alluvial deposits of the West Salt River Valley consist primarily of unconsolidated and weakly consolidated clay, silt, sand, and gravel, forming an effective groundwater reservoir for the area (13). These deposits are divided into three hydrogeologic units and are listed in descending stratigraphic order: the Upper Alluvial Unit, the Middle Fine-Grained Unit, and the Lower Conglomerate Unit (6). The water table lies about 100 feet below ground surface (bgs) (14).

The Upper Alluvial Unit consists of unconsolidated sands, gravel, and clays that range in thickness from approximately 400 feet in the east to 600 feet in the west (10). The Upper Alluvial Unit is the primary source of groundwater for the West Salt River Valley (6). Groundwater in this formation is usually unconfined; however, semi-confined conditions exist locally where there is an increase in finer-grained materials (10).

The Middle Fine-Grained Unit consists of interbedded sand, silt, clay, and evaporate, and ranges in thickness from 150 feet in the eastern portion to greater than 600 feet in the west (6). This unit is generally considered an aquitard, but does yield some water from interbedded, coarser playa deposits and sandy horizons (10). The contact between the Middle Fine-Grained and Lower Conglomerate Unit occurs at a depth of 600 feet below ground surface (bgs) (6).

The deepest hydrogeologic unit, the Lower Conglomerate Unit, consists predominantly of coarse-grained sand and gravel-cemented conglomerate (6). Groundwater in this unit is confined throughout most of the area. This unit is tapped by wells along the periphery of the Salt River Valley Basin where the unit is relatively close to the surface. This unit is becoming a more important source of groundwater in the valley as new wells are being drilled and old wells deepened, however, the thickness of the Lower Conglomerate Unit and the depth to bedrock cannot be reliably estimated using the available data (6).

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The regional groundwater flow in the West Salt River Valley is greatly influenced by groundwater pumpage. Generally, it flows from east to west (14). A major source of recharge in the area is seepage loss from unlined portions of canals and excess irrigation (10). Municipal and industrial sewage effluent released into the Salt, Gila, and Agua Fria River beds is another significant source of recharge (15).

The Shamrock Dairy well is located less than 0.5 miles away from the facility (9). TCE concentrations detected at the well-head during 1987 have ranged from no detection to values exceeding the EPA MCL (6). The Shamrock Dairy well was used as a water supply for the production of bottled water. Although TCE present in the well would volatilize by the time the water was actually bottled, the facility ceased the production of bottled water during June 1989 (24).

City of Phoenix Well #68 is located within 1 mile west of the Astroplate site. This well is part of a blended system (6). The Phoenix water supply system serves approximately 990,000 people (16). The sources of drinking water for Phoenix are comprised of surface water blended with some groundwater. Surface water is imported from reservoirs along the Salt River and the Verde River. The nearest reservoir is 40 miles east of Phoenix and upgradient from the Astroplate site (17). The net annual precipitation for southern Phoenix is 0.5 inches (18,19).

Groundwater in the Phoenix area is used primarily for irrigation (20). Most of the municipal and irrigation water supply wells in the West Central Phoenix area are perforated in the Upper Alluvial Unit and the upper portion of the Middle Fine-Grained Unit (6).

The West Central Phoenix Study Area has three main contaminant plumes. The volatile organic compound (VOC) contamination identified in this study area has impacted several drinking water supply wells. City of Phoenix (COP) wells 70, 71, 151, and 152 have been taken out of operation because of TCE concentrations detected during COP's quarterly monitoring program. Water wells having detectable concentrations of VOCs or those located regionally downgradient from the plume are used for irrigation purposes only (6). Many City wells were shutdown because of groundwater contamination after the fall of 1988 (20).

Although no spills have been reported at the Astroplate site, the potential for contaminants to release to groundwater appears to be moderate due to the high permeability of soils near the site and the use of six below-ground sumps. The sumps are constructed of concrete which is not a completely impermeable material. Furthermore, the waste disposal activities of the previous plating facility are unknown at this time.

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4.3 SURFACE WATER

There are no surface water bodies within 2 miles downslope of the Astroplate site (1). There are several canals in the area which are all bermed and intermittently lined. Water for these canals is drawn from wells (25). Roosevelt Canal is 3.5 miles downslope and the Salt River is 4.0 miles downslope (1). Surface water in the Phoenix area is not used as a drinking water source (20). The Salt River is not used for fishing or recreation within 15 miles of the site (26).

Drinking water intakes are on the Salt and Verde rivers, 30 miles east of Phoenix (20). The 2-year, 24-hour rainfall is 1.4 inches (21). The site is not in a 100-year floodplain (22). The potential for contaminants to release to surface water is low due to the large distances between the site and surface water bodies, the low flood frequency, and the low runoff potential.

4.4 AIR

The aboveground tanks and sump at the Astroplate site are contained within the facility building (9). The facility employs 25 people and there are approximately 568 residents within a 0.25-mile radius (23). The potential for contaminants to release to air appears low because waste sources are well contained and the constituents in these sources are not mobile to air.

4.5 ON-SITE

The on-site exposure pathway has not been evaluated because there is no documentation of hazardous substances released on site. All substances are kept within the facility building. The facility is also fenced, therefore, there is no public access to possible contaminants (9).

5. SUMMARY OF FIT INVESTIGATIVE ACTIVITIES

A site reconnaissance of the Astroplate facility was conducted on May 7, 1990 by Janice T. Brickell and Kathy Zavitz of FIT. An interview was conducted with Armand Mezey, president of the facility. No sampling was conducted.

During the tour, FIT observed that the facility building is ventilated by leaving large doors open in the front and the rear of the facility in addition to the use of large fans. The chemical shed, located outside of the building is protected on three sides, covered with a roof, and has a cement floor. Only dry chemicals are stored in this shed. The sump consists of six below-ground, cement tanks which are within a 4- to 5-foot cement berm.

At the time of the site reconnaissance the facility was in the process of installing new tanks and adding polypropylene liners and rinse trays underneath the double tanks. Therefore, the area appeared cluttered and old equipment and tanks were outside on paved property. FIT observed no evidence of hazardous materials in this area.

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6. EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 CFR 300.415(b)(2)] authorizes the EPA to consider emergency response actions at those sites which pose an imminent threat to human health or the environment.

There is no apparent need for emergency response at this time because all wastes appear to be adequately contained, there is no evidence of on-site contamination, the site is adequately secured from public access, and the site is currently regulated by the City of Phoenix in order to control the amounts of potentially hazardous substances released into the municipal sewer system.

7. SUMMARY OF HRS CONSIDERATIONS

Astroplate is an anodizing facility which has been in operation since 1981. The facility uses acids, zinc phosphate, chromium, caustics, and organic soaps in its processes. All wastes are contained in a below-ground sump where it is neutralized before entering the sewer system.

The site is located within the boundaries of the West Central Phoenix WQARF study area which has been identified as having a contaminant plume containing TCE, PCE, and 1,1-DCE. Three localized plumes of the same contaminants have been identified north, southeast, and southwest of the main contaminant plume. Astroplate is in the vicinity of the southeast plume referred to as the Shamrock Dairy plume.

Groundwater is the main concern in this area since there is an unconfined aquifer below the site. Astroplate has used TCA in past processes. Although TCA is not one of the constituents found in the groundwater contamination plumes, it has been shown to degrade to 1,1-DCE under laboratory conditions (8). The previous owner of this site also operated a plating facility whose processes and waste disposal practices are unknown at this time. Wastes quantities generated from this facility are unknown but are likely to contain heavy metals and solvents because these are common constituents found in plating operations.

Well water in the Phoenix area is blended with imported surface water. There is no surface water within 2 miles downslope of the site and surface water is not used as a drinking water source. Substances used at Astroplate are not readily available to air and there is no documentation of hazardous substances released on site.

The following are significant Hazard Ranking System factors associated with the Astroplate site:

- Unknown, but potentially large waste quantity;
- Large population using groundwater as a drinking water source; and
- Waste disposal practices of the previous plating operation on site are unknown at this time.

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8. EPA RECOMMENDATION

	Initial	Date
No Further Remedial Action Planned under CERCLA		
Higher-Priority SSI under CERCLA		
Lower-Priority SSI under CERCLA	[signature]	9.28.90
Defer to Other Authority (e.g., RCRA, TSCA, NRC)		

Notes:

jb/ai/pa

9. REFERENCES

1. U.S. Geological Survey, map of Phoenix, Arizona, 7.5-minute quadrangle, 1953 (photorevised 1982).

2. Mezey, Armand, President, Astroplate Inc., and Janice T. Brickell, Ecology and Environment, Inc.'s Field Investigation Team (E & E FIT), telephone conversation, April 6, 1990.

3. Mezey, Armand, President, Astroplate Inc., and Janice T. Brickell, E & E FIT, telephone conversation, April 27, 1990.

4. Mezey, Armand, President, Astroplate Inc., and Janice T. Brickell, E & E FIT, telephone conversation, April 20, 1990.

5. Arizona Department of Environmental Quality (ADEQ), Waste Compliance Unit, inspection report, April 15, 1986.

6. Earth Technology Corporation, "Water Quality Assurance Revolving Fund Phase I Report, West Central Phoenix Area," prepared for ADEQ, August 1989.

7. Vargas, Anna, ADEQ, and Kathy Zavitz, E & E FIT, telephone conversation, April 10, 1990.

8. Cline, P.V., J.J. Delfino, and W.J. Cooper, "Hydrolysis of 1,1,1-Trichloroethane; Formation of 1,1-Dichloroethene," Proceedings of the NWWA/API Conference on Petroleum Hydrocarbons and Organic Chemicals in Ground Water - Prevention, Detection and Restoration, NWWA, Dublin, OH, 1986.

9. Mezey, Armand, President, Astroplate Inc., Site Reconnaissance Interview and Observations Report, Janice T. Brickell and Kathy Zavitz, E & E FIT, May 7, 1990.

10. U.S. Bureau of Reclamation, Geology and Groundwater Resources Report, Maricopa and Pinal Counties, Arizona, Vols. 1,2, Lower Colorado Region, Arizona Projects Office, Phoenix, AZ, 1977.

11. Reeter, R.W., and W.H. Remick, Maps Showing Groundwater Conditions in the West Salt River, East Salt River, Lake Pleasant, Carefree and Fountain Hills Sub-Basins of the Phoenix Active Management Area, Maricopa, Pinal and Yavapai Counties, Arizona-1983, Hydrologic Map Series Report Number 12, Arizona Department of Water Resources, Phoenix, AZ, 1986.

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15. Smith, S.A., G.G. Small, T.S. Phillips, and M. Chester, Salt River Project Water Resources Operations, Groundwater Planning Division, Water Quality in the Salt River Project, Preliminary Report, Phoenix, AZ, 1982.

16. Blanco, Frank, City of Phoenix Water Department, and Helena Brykarz, E & E FIT, telephone conversation, December 29, 1989.

17. Hayes, Jerry, Phoenix Water Production Administration, and Janice T. Brickell, E & E FIT, telephone conversation, April 12, 1990.

18. Federal Register, Vol. 53, No. 247, Proposed Rules, 52029-52030, December 23, 1988.

19. U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Environmental Satellite Data and Information Service, National Climatic Data Center, Comparative Climatic Data for the United States Through 1985, Nashville, TN.

20. Gibson, Grant, Department of Water Resources, and Min Yao, E & E FIT, telephone conversation, April 5, 1989.

21. U.S. Department of Commerce, NOAA, National Weather Service, NOAA Atlas II, Precipitation-Frequency Atlas of the Western United States, Volume VIII-Arizona, p. 31, Silver Spring, Maryland, 1973.

22. Johnson, Bob, City of Phoenix Planning Department, and Kathy Zavitz, E & E FIT, telephone conversation, April 13, 1990.

23. Maricopa County Planning Department, "Special Census Study of Maricopa County," 1985.

24. Lagas, Phil, Earth Technology Corporation, and Kathy Zavitz, E & E FIT, telephone conversation, April 16, 1990.

25. Mack, Bruce, Salt River Project, and Min Yao, E & E FIT, telephone conversation, June 13, 1989.

26. Silvey, Bill, Arizona Fish and Game, and Carrie Austin, E & E FIT, March 16, 1990.

27. Williams, William H., Site Discovery and Hazard Evaluation Unit, ADEQ, letter to Paul La Courreye, EPA, April 9, 1987.

28. Whittaker, Donald G., Waste Compliance Unit, ADEQ, letter to Armand Mezey, President, Astroplate Inc., May 30, 1986.

jb/ai/pa

APPENDICES

PA/SI CONTACT LOG

Facility Name: Astroplate Inc.
Facility ID: AZD981424468

Name	Affiliation	Phone #	Date	Information
Jerry Hayes	Phoenix Water Production Administration	602-262-7454	12/9/88	See Contact Report.
Chuck Graff	ADEQ Hydrology	602-257-2557	3/15/89	See Contact Report.
Grant Gibson	Arizona Dept. of Water Resources (DWR)	602-542-1552	4/5/89	See Contact Report.
Leslie Fitzpatrick	U.S. Dept. of Fish and Wildlife	602-261-4720	4/27/89	Nearest endangered species is south of the Gila River.
Bert Thompson	USGS, Phoenix	602-241-5410	5/2/89	See Contact Report.
Stan Ashby	Roosevelt Irrigation District	602-386-2046	6/7/89	See Contact Report.
Bruce Mack	Salt River Project	602-236-2579	6/13/89	Salt River has been mostly dry since 1981. When water does flow, it is only used for irrigation. Conversation with Min Yao, E & E FIT.
Frank Blanco	City of Phoenix	602-262-7454	9/21/89	See Contact Report.
Stan Ashby	Roosevelt Irrigation District	602-935-4271	9/22/89	See Contact Report.
Frank Blanco	City of Phoenix	602-262-7454	12/29/89	See Contact Report.
Bill Silvey	Arizona Fish and Game	602-942-3000	3/16/90	See Contact Report.
Leslie Miller	Astroplate Incorporated	602-272-9246	4/5/90	See Contact Report.

jb/ai/clcr

PA/SI CONTACT LOG (continued)

Facility Name: Astroplate Inc.
Facility ID: AZD981424468

Name	Affiliation	Phone #	Date	Information
Armand Mezey	Astroplate Incorporated	602-272-9246	4/6/90	See Contact Report.
Anna Vargas	Arizona Dept. of Environmental Quality (ADEQ)	602-257-2394	4/10/90	See Contact Report.
Leslie Fitzpatrick	U.S. Fish and Game	602-379-4720	4/12/90	There are no sensitive environments within a 15 mile radius of the Astroplate site. However, the Yuma Clapper Rail inhabits the Gila River area which is >15 miles from W. Central Phoenix Area but <100 miles.
Grant Gibson	Dept. of Water Resources	602-542-1552	4/12/90	Left message.
Jerry Hayes	Phoenix Water Production Administration	602-262-7454	4/12/90	See Contact Report.
Bob Johnson	City of Phoenix	602-262-4070	4/13/90	See Contact Report.
	Office of Water Quality	602-257-2369	4/13/90	No tanks are registered in this area.
Phil Lagas	Earth Technology Corporation	602-894-8482	4/16/90	See Contact Report.
Armand Mezey	Astroplate Inc.	602-272-9246	4/20/90	See Contact Report.
Bea Shreeve	ADEQ Office of Waste Programs Hazardous Waste Compliance Unit	602-257-2211	4/25/90	There is a small file for Astroplate. Looks like inspection reports. Nothing since 1986.

jb/ai/clcr

PA/SI CONTACT LOG (continued)

Facility Name: Astroplate Inc.
Facility ID: AZD981424468

Name	Affiliation	Phone #	Date	Information
Bea Shreeve	ADEQ	602-257-2211	4/26/90	She is making a copy of the Astroplate file and sending it to me as soon as she receives a check for $11.75.
Brad Lyzwa	City of Phoenix	602-262-6011	4/26/90	He isn't sure who might have a file on Astroplate. He suggested calling Water Quality at 602-262-6251 or County Health Dept. at 602-258-6381.
Clerk	City of Phoenix Water Quality	602-262-6251	4/26/90	This dept. only handles billing for water use. Any records of hazardous waste would be kept by ADEQ Water Compliance Unit.
Armand Mezey	Astroplate Inc.	602-272-9246	4/27/90	See Contact Report.
John Watson	City of Phoenix Water and Wastewater Department	602-262-6011	5/2/90	See Contact Report.
Phil Lagas	Earth Technology	602-894-8482	5/7/90	See Contact Report.
Armand Mezey	Astroplate Inc.	602-272-9246	5/7/90	Site Reconnaissance Interview and Observations Report.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Arizona Department Environmental Quality		
DEPARTMENT: Hydrology		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Chuck Graff	Hydrologist	602-257-2357
2.		
E & E PERSON MAKING CONTACT: Min Yao		**DATE:** 3/15/89
SUBJECT: Site Hydrology and Geology		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

Groundwater in Phoenix generally flows from east to west. The water table lies about 50 to 80 feet below ground surface. Under the site* (Reynolds Metals) the water level is 90 to 100 feet.

Soil type: The first 8 to 20 feet are fine unit. Under 20 feet lies the water table. The unit under the water table is gravel and sandy gravel.

Source of drinking water in Phoenix: surface water mixed with some groundwater. The water supply system serves 800,000 people.

The nearest city well: 2.9 miles north of the site.

Surface water: There are no intakes from Salt River. There are intakes for Grand Canal. Chuck will check for me which areas the canal irrigates.

* This contact report is taken from FIT report: Reynolds Metals Phoenix Extrusion, EPA ID: AZD008394249.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: U.S. Geological Survey		
DEPARTMENT:		
ADDRESS/CITY: Phoenix		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Bert Thompson		602-241-5410
2.		
E & E PERSON MAKING CONTACT: Min Yao		**DATE:** 5/2/89
SUBJECT: Groundwater Information		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

The aquifers in the first few hundred feet are unconfined, which means they are interconnected.

* This contact report is taken from FIT report: Reynolds Metals Phoenix Extrusion, EPA ID: AZD008394249.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Phoenix Water Production Administration		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Jerry Hayes		602-262-7454
2.		
E & E PERSON MAKING CONTACT: Edward Kwong		**DATE:** 12/9/88
SUBJECT: Drinking water sources in Phoenix		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Mr. Hayes states most of the drinking water is surface water from the Verde and Salt River. Groundwater is a supplemental source for the city. He estimates 85 percent of the water is from surface water and 15 percent from groundwater.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Arizona Department of Water Resources		
DEPARTMENT: Remedial Action Division		
ADDRESS/CITY: 15 S. 15th Ave., Phoenix		
COUNTY/STATE/ZIP: Maricopa, Arizona 85007		
CONTACT(S)	**TITLE**	**PHONE**
1. Grant Gibson		602-542-1552
2.		
E & E PERSON MAKING CONTACT: Min Yao		**DATE:** 4/5/89
SUBJECT: Groundwater and Surface Water Information		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Drinking water in Phoenix is surface water from the Salt River and Verde River, with intakes 30 miles east of Phoenix, which is upstream from the site. According to regulations under corporation commission, drinking water in Phoenix is strictly provided by the city water supply system. Starting in the fall of 1988, most city wells were shut down because of groundwater contamination. There are some farms irrigated by groundwater. Detailed information can be obtained from Terry Mikeal at Maricopa Cooperation Extension 602-255-4456.

Surface water: Salt River is a dry river that only flows occasionally. Generally, this river is not used. Groundwater is pumped to the Roosevelt Canal, which is used for irrigation.

Contact: Roosevelt Irrigation District
602-386-2046

* This contact report is taken from FIT report: Reynolds Metals Phoenix Extrusion, EPA ID: AZD008394249.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Roosevelt Irrigation District		
DEPARTMENT:		
ADDRESS/CITY: 103 W. Baseline, Buckeye		
COUNTY/STATE/ZIP: Maricopa, Arizona 85326		
CONTACT(S)	**TITLE**	**PHONE**
1. Stan Ashby	Superintendent of District	603-386-2046
2.		
E & E PERSON MAKING CONTACT: Min Yao		**DATE:** 6/7/89
SUBJECT: Phoenix Irrigation Water Supply		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

Roosevelt Canal is 40 miles long. Water is drawn from wells and blended to some extent. Canal water irrigates 38,000 acres of various crops.

Well (A-1-2) 10aaa collapsed two years ago. Its pumping rate was 22.3 gallons per minute. They usually pump water in summer.

* This contact report is taken from FIT report: Reynolds Metals Phoenix Extrusion, EPA ID: AZD008394249.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Phoenix		
DEPARTMENT: Water Dept.		
ADDRESS/CITY: 125 East Washington, Phoenix		
COUNTY/STATE/ZIP: Maricopa County, Arizona 85004		
CONTACT(S)	**TITLE**	**PHONE**
1. Frank Blanco	Principal Engineering Tech.	602-262-7454
2.		
E & E PERSON MAKING CONTACT: Howard Edwards		**DATE:** 9/21/89
SUBJECT: Active City of Phoenix Wells		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

No active wells within 3 miles of the site. Three of the fifteen city of Phoenix wells located between 3 and 4 miles might still be used.

Further investigation indicated that the wells were currently inactive due to high nitrates and total dissolved solids.

Wells in Phoenix area are blended into a surface water reservoir. Drinking water population is from 1 to 1.1 million people.

* This contact report is taken from FIT report: Union Oil Phoenix Site, EPA ID: AZD070259767.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Roosevelt Irrigation District		
DEPARTMENT:		
ADDRESS/CITY: 103 W. Baseline, Buckeye		
COUNTY/STATE/ZIP: Maricopa, Arizona 85326		
CONTACT(S)	**TITLE**	**PHONE**
1. Stanley Ashby	Superintendent of District	602-935-4271
2.		
E & E PERSON MAKING CONTACT: Howard Edwards		**DATE:** 9/22/89
SUBJECT: Roosevelt Irrigation District		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

Rain runoff water does not enter the irrigation canals. Severe runoff could enter the irrigation ditches that carry water from the canal. The canal contains groundwater pumped to the surface for agricultural distribution.

* This contact report is taken from FIT report: Union Oil Phoenix Site, EPA ID: AZD070259767.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Phoenix		
DEPARTMENT: Water Production Department		
ADDRESS/CITY: 5204 East Thomas Rd., Phoenix		
COUNTY/STATE/ZIP: Arizona 85034		
CONTACT(S)	**TITLE**	**PHONE**
1. Frank Blanco		602-262-7454
2.		
E & E PERSON MAKING CONTACT: Helena Brykarz		**DATE:** 12/29/89
SUBJECT: Phoenix drinking water supply		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

The city of Phoenix gets 92% of its drinking water from surface water sources (SRP, Central Arizona Canal).

The remaining 8% is from groundwater from wells within Phoenix. These two water sources are treated and blended together. They serve a population of 990,000 - this excludes the populations from Scottsdale and Mesa, which also receive Phoenix water.

* This contact report is taken from FIT report: SRP Well Site 17E-8N/Eastlake Park, EPA ID: AZD980882674.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Arizona Dept. of Fish and Game		
DEPARTMENT:		
ADDRESS/CITY: 2222 W. Greenway, Phoenix		
COUNTY/STATE/ZIP: Maricopa, Arizona 85023		
CONTACT(S)	**TITLE**	**PHONE**
1. Bill Silvey		602-942-3000
2.		
E & E PERSON MAKING CONTACT: Carrie Austin		**DATE:** 3/16/90
SUBJECT: Fishing in Salt River		
SITE NAME: Astroplate Inc.*		**EPA ID#:** AZD981424468

The Salt River is an intermittent river. However, effluent and runoff do flow into it. The department recommends that any fish caught from the river not be consumed.

* This contact report is taken from FIT report: McCoy's Laundry, EPA ID: AZD982006793.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Astroplate Inc.		
DEPARTMENT:		
ADDRESS/CITY: 2724 W. Palm Lane		
COUNTY/STATE/ZIP: Phoenix, Arizona 85009		
CONTACT(S)	**TITLE**	**PHONE**
1. Leslie Miller	Accounts Receivable	602-272-9246
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 4/5/90
SUBJECT: General		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Armand Mezey has owned the company for seven years. Frank Mason was the owner before that, but she is not sure how long Mr. Mason owned it.

Astroplate is a plating facility that plates stainless steel and aluminum. It uses chemicals such as nitric acid, muriatic acid and sulfuric acid. Ms. Miller did not know the other chemicals used.

When asked what Astroplate does, she responded with terms such as anodize, black oxide, zinc phosphate, chem film, and passivate.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Astroplate Inc.		
DEPARTMENT:		
ADDRESS/CITY: 2724 W. Palm Lane		
COUNTY/STATE/ZIP: Arizona 85009		
CONTACT(S)	**TITLE**	**PHONE**
1. Armand Mezey	President	602-272-9246
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 4/6/90
SUBJECT: General information regarding the facility		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Cross streets for Astroplate are 27th Avenue and McDowell.

Astroplate Inc. has been in existence since 1981. Mr. Mezey has been there since 1984 and does not know prior history of the facility.

There are 24-25 employees at Astroplate and the facility property is under 1 acre. On site there is one building with a patio. It is approximately 7,500 sq. ft.

Mr. Mezey prefers to answer most questions in writing. FIT is sending a list of questions to him. He will also include a sketch of the facility with his answered questions.

The facility has no degreasers; it uses organic soaps. It also has an organic dye tank.

Some processes used are nickel acetate sealing and passivate cleaning. About 90% of the facility's activities is anodizing stainless steel and aluminum.

Some materials used are muriatic acid, caustic salts (sodas which neutralize the acids), and nitric acid.

The facility also did some zinc plating from 1981 - 1988.

As president, Mr. Mezey set out to get rid of solvent use and changed to biodegradable soaps. This is a slower method but it works just as well as trichlor and perchlor.

The facility used to use perchlor and stopped in 1983.

jb/ai/clcr

Astroplate had a vapor degreaser that used trichlorethane. This use stopped in 1986.

The facility has been using organic soaps since February 12, 1985.

Small amounts of methyl ethyl ketone (MEK) are used at the facility to clean off ink or dye.

Mr. Mezey claims to put forth great effort to protect the health and safety of his employees. There has never been an industrial accident since 1984.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Arizona Department of Environmental Quality		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Anna Vargas		602-257-2394
2.		
E & E PERSON MAKING CONTACT: Kathy Zavitz		**DATE:** 4/10/90
SUBJECT: Questionnaire for Arizona Hard Chrome and Astroplate		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

There was no facility questionnaire sent for the Astroplate site. The site is in the area of the Shamrock Dairy Well(s). This area still needs a Phase I research plan to point sources.

There are three separate plumes in the West Central Phoenix area. The main plume has contaminated wells 151 and 152.

Phil Lagas of Earthtech is coordinating the Shamrock area study. 602-894-8482. Call him to get information on status of study.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Phoenix Water Production Administration		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Jerry Hayes		602-262-7454
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 4/12/90
SUBJECT: Surface water		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

The nearest intake is along the Salt River and goes through the Verde Water Treatment plant located at the Salt River Indian Reservation.

Salt River water is distributed to the canal system.

85% of drinking water comes from surface water. This surface water comes from a series of dams along the Salt River and Verde River. The closest dam is 40 miles away.

Canals are use to transport water to treatment plants or irrigation channels. The treatment plants treat the water before distributing it as drinking water.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Phoenix		
DEPARTMENT: Planning Department		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Bob Johnson		602-262-4070
2.		
E & E PERSON MAKING CONTACT: Kathy Zavitz		**DATE:** 4/13/90
SUBJECT: Floodplain frequency		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

The site is not in a 100-year floodplain.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Earth Technology Corporation		
DEPARTMENT:		
ADDRESS/CITY: 2411 West 14th Street, Suite 210, Tempe		
COUNTY/STATE/ZIP: Maricopa, Arizona 85281		
CONTACT(S)	**TITLE**	**PHONE**
1. Phil Lagas	Project Manager	(602) 894-8482
2.		
E & E PERSON MAKING CONTACT: Kathy Zavitz		**DATE:** 4/16/90
SUBJECT: West Central Phoenix WQARF Study Area		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Phil Lagas coordinated Earthtech's study of the West Central Phoenix area.

Shamrock Dairy Well produced bottled water. TCE was found in the well, and the well was shut down even though the VOCs were volatilized out before the water was actually bottled.

This TCE contamination is thought to be part of a different plume than the main plume in the West Central Phoenix WQARF Study Area.

Aerial photos located pits in the Shamrock Dairy area. The area around the Shamrock Dairy well was excavated for gravel or brick material, leaving pits. These pits were then backfilled with refuse of unknown type. It is possible that the pits caused or contributed to the contamination plume. These pits are northeast of the Arizona Hard Chrome site.

COP well #68 is downgradient from the pits.

COP well #100 was shut down in 1984.

All Salt River Project wells are used for irrigation.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Astroplate Inc.		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Armand Mezey	President	602-272-9246
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 4/20/90
SUBJECT: General information		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Astroplate has not had any other locations. The facility does not manufacture products. It is an electroplating facility which receives aluminum and steel products which are coated, usually by anodizing, and then returned to the original manufacturer or owner.

Aluminum products are usually anodized. They are cleaned in a 10% nitric acid solution. Then they are anodized in a 25% sulfuric acid solution using electrical current. The parts are then rinsed and dyed with organic dye (if necessary). Finally the products are sealed with a nickel acetate seal and rinsed in hot deionized water. This process prevents aluminum from rusting, creates a surface that absorbs dye, and seals in the colors. Astroplate does regular anodizing and hard anodizing.

The Chem film process does not put parts into the anodizing tank. It coats aluminum as a prepainting preparation. This process does not use aluminum.

The types of hazardous materials used are small quantities of industrial strength sulfuric acid, 10% nitric acid solution, 25% hydrochloric (muriatic) acid solution, 15% caustic soda solution, and MEK (methyl ethyl ketone). Astroplate uses about 12 gallons per year.

Another process at the facility is black oxide. This is about 2% of Astroplate's business. This process uses organic soaps and muriatic acid. The black oxide penetrates steel to make it black. It is finished by dipping it into a water soluble oil.

The zinc phosphate process uses the same cleaning process as black oxide, then products go into a heated zinc phosphate solution tank.

jb/ai/clcr

Astroplate was formed in 1982. Armand Mezey took over in 1984. From 1984-1985 the facility used 1,1,1-trichloroethane in a vapor degreaser.

Physical states and quantities of hazardous materials used:

Material	Quantity	Physical State
1,1,1-trichloroethane	6 drums/year	liquid
organic soap	6,000 lbs./year	powder
caustic soda	1,600 lbs./year	powder
sulfuric acid	1,600 lbs./year	liquid
nitric acid	360 gal./year	liquid
hydrochloric acid	<100 gal./year	liquid

Acids and caustic are supplied by Hills Bros. Chemicals. Organic soaps are supplied by Witco International and the black oxide salts are supplied by McGean Roco.

Raw product substances are only temporarily on site when tank solutions are being changed.

sulfuric acid = 13-26 gallons
nitric acid = 14 gallons
hydrochloric acid = 13 gallons

Tanks with substances in solution.

Tank volume	Solution
1,200 gal.	22-25% sulfuric acid
1,100 gal.	22-25% sulfuric acid
750 gal.	10% nitric acid
20 gal.	25-30% hydrochloric acid

Astroplate keeps its dry chemicals in a chemical shed. The acids are kept where there is a concrete floor and a drain 5 feet below floor level.

Wastewater flows into a Weir box before entering the sewer system. The Weir box serves as access to the wastewater for sampling. The wastewater must be at a pH level between 5 and 9 before entering the sewer system.

The facility does not store raw materials on site because these materials are almost immediately mixed into a solution.

All tanks at the facility are above ground. They are double tanks and all have a polypropylene liner. The building slopes to the center drain. Tanks are in a closed area.

The only type of waste generated at the facility is wastewater because the acids wear out and need to be changed. The wastewater is always in a liquid state.

jb/ai/clcr

Astroplate generates 15,000 gallons of wastewater per day = 5,475,000 gallons/year (365 days/year).

The facility does not store wastewater. The only time that wastewater might remain onsite is in the event of a spill. Then the wastewater would remain in the containment drain until it is pumped back into a tank or neutralized.

Neutralization in tanks is the only type of waste treatment done at the facility.

There are no wastes currently on site. The facility does not use waste haulers.

There are no off-site disposal areas.

The facility has not had any spills or releases that Mr. Mezey knows of.

Astroplate has a City of Phoenix Wastewater Permit # 89041290 which expires June 1990.

The facility was inspected by OSHA in 1986. The Phoenix Wastewater Division conducts unannounced inspections about eight times a year in addition to its annual visit. Arizona State Health and Air Quality also conducts regular inspections. Every year the Phoenix Fire Department inspects the facility at the owner's request.

The facility has never been cited for a pollution violation.

Mr. Mezey has expressed great concern for the practices of printing companies and newspaper companies because they use tons of solvents on a daily basis in order to operate their printing facilities.

Mr. Mezey has worked with the City of Phoenix to design his shop to incorporate safe practices. He is in the process of relocating and installing new tanks. In addition he is adding polypropylene trays. These trays prevent leaks from going onto the floor. At night the trays are rinsed and the rinse water goes into the wastewater stream.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Astroplate Inc.		
DEPARTMENT:		
ADDRESS/CITY: 2724 W. Palm Lane, Phoenix		
COUNTY/STATE/ZIP: Maricopa, Arizona 85009		
CONTACT(S)	**TITLE**	**PHONE**
1. Armand Mezey	President	602-272-9246
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 4/27/90
SUBJECT: MSDS and number of tanks at facility		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

A plating company occupied the property beginning in 1978. They went out of business before 1981. He has been told that the name was Techno Finish and the facility included the facility next door.

MSDS are available at the facility. FIT will obtain copies during the site recon. Black oxide salts are a caustic. The zinc phosphate solution is zinc suspended in a solution of phosphate.

There are several tanks of various solutions. FIT will obtain this information during the site recon.

An appointment for the site recon is scheduled for May 7, 1990 at 2:30 p.m.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Phoenix		
DEPARTMENT: Water and Wastewater		
ADDRESS/CITY: Phoenix		
COUNTY/STATE/ZIP: Maricopa, Arizona		
CONTACT(S)	**TITLE**	**PHONE**
1. John Watson		602-262-6011
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 5/2/90
SUBJECT: File information		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

The City of Phoenix has an active file on Astroplate.

To his knowledge, Astroplate is a small facility. The facility never discharges more than 20,000 gallons of wastewater to the sewer system. The amount discharged is probably much lower than that.

There is no treatment at the facility except for cyanide. The concrete tanks are below grade.

The facility has had some compliance problems where too much zinc, cyanide, or chromium was released into the sewer system.

Vaughn Karkos of the Water and Wastewater Department is in charge of this facility. Ken Karnes may also be assigned to this site. Mike Rose is in charge of Arizona Hard Chrome, the site on which Kathy Zavitz is working.

jb/ai/clcr

CONTACT REPORT

AGENCY/AFFILIATION: The Earth Technology Corporation		
DEPARTMENT:		
ADDRESS/CITY: 2411 W. 14th Street, Suite 210, Tempe		
COUNTY/STATE/ZIP: Maricopa County, Arizona 85281		
CONTACT(S)	**TITLE**	**PHONE**
1. Phil Lagas	Senior Geologist	(602) 894-8482
2.		
E & E PERSON MAKING CONTACT: Janice Brickell		**DATE:** 5/7/90
SUBJECT: West Central Phoenix Study Area		
SITE NAME: Astroplate Inc.		**EPA ID#:** AZD981424468

Since the Phase I Study, six City of Phoenix (COP) wells have been shut down. COP well #100 might be open. COP wells 70, 71, 151, and 152 are closed. Salt River Project wells are located along the canals and are used for irrigation purposes. There is a well at 31st and McDowell, ID #9, whose owner is unknown.

Lagas suggested that, when doing site recons, it is useful to look for septic system or how long the facility has been hooked up to the sewer system. Most people were connected to the municipal sewer system by 1960. He said to ask about what they did prior to sewer hook-up.

He is not sure if a detailed study will be done for the Shamrock Dairy area. It has a lower priority.

Groundwater is 90 to 100 feet deep in the area of the Astroplate site. This site probably did not contribute to the main contamination plume.

Also, he suggested looking for dry wells during site recons; for a sewer or a hole with a grate. These can be found in fields and retention basins. He said to be sure to look in the parking lot and truck loading docks.

Grand Canal and Roosevelt Canal are used for irrigation purposes only.

jb/ai/clcr

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Ecology and Environment, Inc.		
Field Investigation Team (FIT)		
160 Spear Street, Suite 1400		
San Francisco, California 94105		
(415) 777-2811		
E & E PERSON(S) CONDUCTING INTERVIEW AND MAKING OBSERVATIONS:		
Janice T. Brickell and Kathy Zavitz		
FACILITY REPRESENTATIVE(S):	**TITLE:**	**PHONE:**
Armand Mezey	President	(602) 272-9246
SITE NAME: Astroplate Inc.		**DATE:** 5/7/90
CITY/STATE: Phoenix, Arizona		**EPA ID#:** AZD981424468

The following information was obtained during the interview:

Processes at the Astroplate site involve anodizing, chem film, nickel acetate seal, black oxide, and zinc phosphate. The following table lists the tanks, contents of each tank, and the volume of each tank:

Tank No.	Contents	Volume
1	Organic soap	750 gal.
2	Organic soap	750 gal.
3	Rinse Water	750 gal.
4	Etching solution Hydrochloric acid (scratch surface for cleaning purposes)	750 gal.
5	Rinse water	750 gal.
6	Rinse water	750 gal.
7	Nitric acid solution	750 gal.
8	Rinse water	750 gal.
9	Desmutting	750 gal.
10	Rinse water	750 gal.
11	Sulfuric acid anodizing solution	1100 gal.
12	Spray rinse	750 gal.

jtb/astro/recon

Tank No.	Contents	Volume
13	Sulfuric acid anodizing solution	1200 gal.
14	Rinse water	750 gal.
15	Black dye	750 gal.
16	Spray rinse	750 gal.
17	Organic dye	300 gal.
18	Organic dye	150 gal.
19	Organic dye	150 gal.
20	Organic dye	150 gal.
21	Organic dye	150 gal.
22	Rinse water	750 gal.
23	Nickel acetate seal	750 gal.
24	Rinse water	750 gal.
25	Chem film (chromium)	600 gal.
26	Rinse water	750 gal.
27	Hot rinse water	750 gal.
28	Zinc phosphate (adheres to clean steel like an undercoating)	30 gal.

The chromium in the Chem Film does not create sludge.

Astroplate was formed sometime in 1981. Armand Mezey took over on November 15, 1983. At this time the facility was already connected to the sewer system.

Jack Dean Plumbing owned the property between approximately 1974 to 1975.

Anacad used to be next to the Shamrock Dairy. It was the major competitor for Astroplate. There are no dry wells at the facility.

The facility did use 1,1,1 TCA in the past. Two drums were picked up by a reclaimer (Rinchem).

The following observations were made during the site visit:

A center drain, located in the plating areas, carries wastes to the sump. The sump is belowground and surrounded by a 4 to 5 foot berm.

The building is well ventilated with large fans and doors are left open for fresh air.

A residential area is located within 0.25 miles of the site and the Shamrock Dairy well is within 0.50 miles of the site.

jtb/astro/recon

FIELD PHOTOGRAPHY LOG SHEET

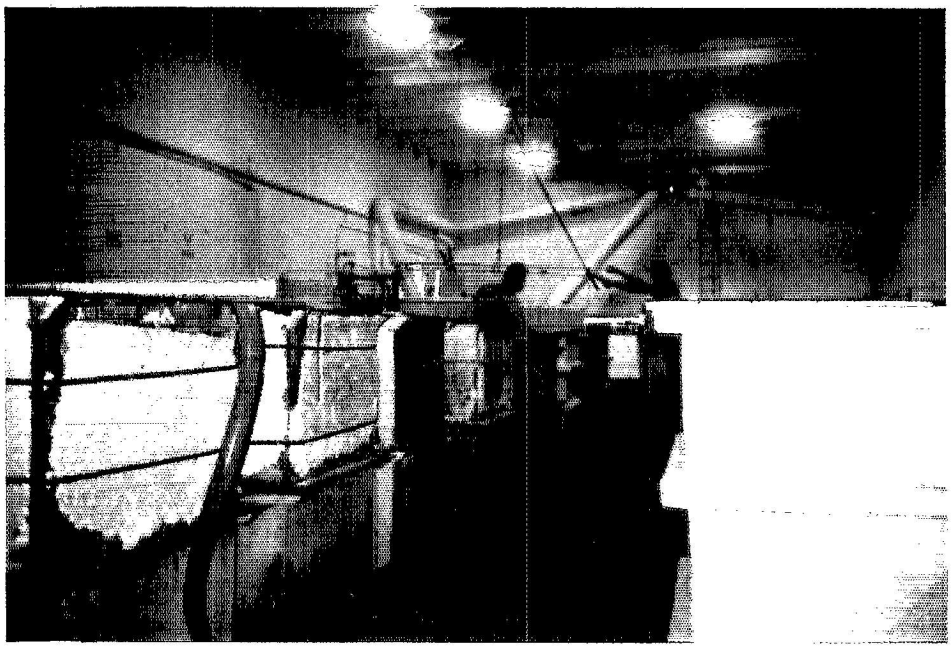
DATE:
May 7, 1990

TIME:
3:05 p.m.

DIRECTION:
Inside

WEATHER:
Hot, sunny, 100°

PHOTOGRAPHED BY:
Janice T. Brickell



DESCRIPTION:
Employees running parts through anodizing tanks. A containment trough which drains into the sump is located underneath the metal grate.

DATE:
May 7, 1990

TIME:
3:07 p.m.

DIRECTION:
Inside

WEATHER:
Hot, sunny, 100°

PHOTOGRAPHED BY:
Janice T. Brickell

DESCRIPTION:
This is another section of the containment trough which drains into the sump.

>/>/fpls

FIELD PHOTOGRAPHY LOG SHEET

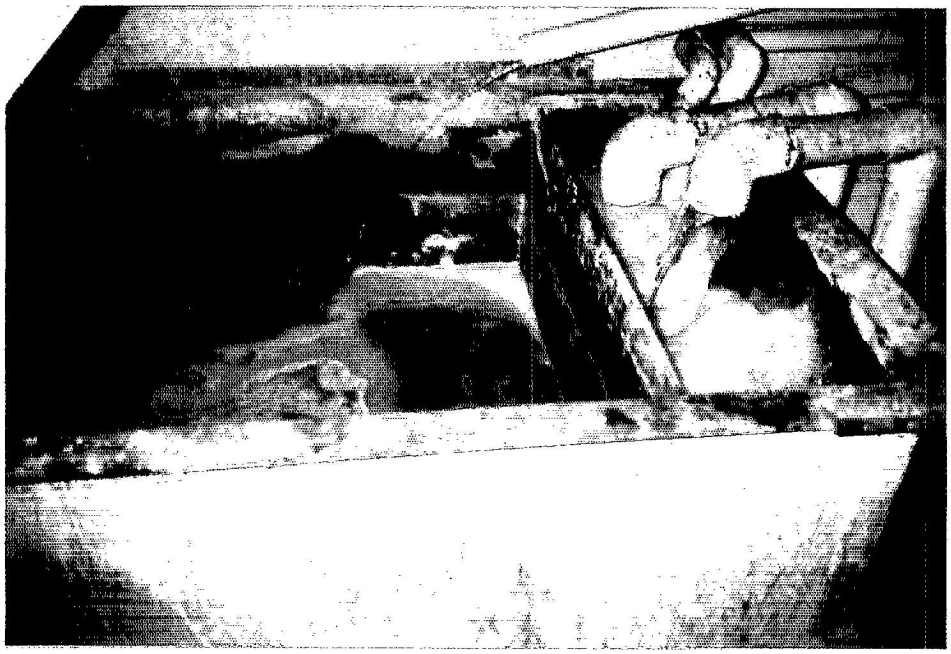
DATE:
May 7, 1990

TIME:
3:13 p.m.

DIRECTION:
Inside

WEATHER:
Hot, sunny, 100°

PHOTOGRAPHED BY:
Janice T. Brickell



DESCRIPTION:
All wastewater contained in the sump flows through this weir box before entering the sewer system.

DATE: May 7, 1990

TIME: 3:20 p.m.

DIRECTION: North

WEATHER: Hot, sunny, 100°

PHOTOGRAPHED BY:
Janice T. Brickell

DESCRIPTION: Empty drums and containers located outside the facility building. The ground is not paved in this area.

>/>/fpls